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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,034	05/18/1999	MARK F. SCHULZ	54565USA4A	4599

32692 7590 03/28/2003

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EXAMINER

GRENDZYNSKI, MICHAEL E

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/28/2003

22

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/314,034

Applicant(s)

SCHULZ ET AL.

Examiner

Michael E. Grendzynski

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1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22 and 25-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22 and 25-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

OK
1. Claims 22 and 25, 29, and 33-35 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-7, 9-16 and 18-20 of copending Application No. 09/099983. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: The '983 application claims a porous substrate membrane impregnated with a composition comprising an anionic surfactant, an organometallic salt and an organic acid. The porous membrane of the '983 application is equivalent to applicants' porous substrate. It comprises a synthetic (e.g., polypropylene) self-supporting film that possesses a pore value within applicants' pore value. The organometallic salt is equivalent to applicants' claimed metal salt. It comprises, e.g., magnesium sulfophthalate or aluminum sulfophthalate. See '893 application at claim 14. The use of the open-ended transition term "comprising," moreover, does not prohibit the existence of an organic acid in the instant application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

OK The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The composition of the pigment management system is questioned. Claim 1 limits the composition of the multivalent salts to those having a metal cation of Mg, Ti, Cr, Zr, Fe, Cu, Zn, Ga, Ta or Sn. Claim 32, however, claims a multivalent salt of aluminum sulfate, i.e., a salt having a metal cation of Al. Was this intended? Does the pigment management system only comprise aluminum sulfate? Does the system further comprise aluminum sulfate? Clarification is requested. For the purposes of examination, it has been assumed that the system comprises aluminum sulfate in lieu of the metal cations of claim 1.
- but
do 29

Claim Rejections - 35 USC § 103

4. Claims 22, 25-29 and ~~32-37~~ are rejected under 35 USC 103(a) as being unpatentable over Kovacs (US 6206517) in view of Akutsu (GB 2147003). Kovacs discloses an ink-jet printing medium comprising a substrate and an image-recording layer thereon. *See* Abstract. The substrate is equivalent to applicants' macroporous substrate—it comprises Tyvek® (used by applicants in Example 5). *See* col. 6, l 66 through col. 7, l 7. The image-recording layer comprises nonionic, hydrocarbon or fluorocarbon surfactants and a matting agent comprising titanium dioxide (which is equivalent to applicants' opacifying agent/pigment). *See* col. 6, ll 28-33. Kovacs does not limit the additives that may be placed in its image-recording layer. *See* col.

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6, ll 26-40 (stating the image-recording layer may comprise conventional additives, including waterproofing agents). Akutsu teaches that multivalent salts such as calcium chloride and zinc chloride are added to an ink-receptive layer in order to “obtain whiteness, non-pollution, non-changing of colour tone, high resistance to light and *high resistance to water* of the images” placed on the layer. See p 1, ll 33-54 (emphasis added). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a multivalent metal salt such as zinc chloride in the Kovacs image-recording layer, motivated by the desire of improving the color rendition and light/water resistance of the images placed thereon, as taught by Akutsu on p 1, ll 51-54.

With specific regard to claims 25 and 34, since Tyvek® is identical to the supports used by applicants in the invention (Example 5), it is inherent the support possesses the claimed porosity value.

With specific regard to claims 32 and 33, Akutsu discloses the use of aluminum sulfate. See p 1, l 43.

5. Claims 22, 25-26, 28, 29, and 32-37 are rejected under 35 USC 103(a) as being unpatentable over Wallace (US 4889765) in view of Akutsu (GB 2147003). Wallace discloses ink-receptive coatings that are placed on spun-bonded polyolefin sheets such as Tyvek®. See Abstract and col. 5, ll 35-39. Tyvek® is identical to the macroporous substrate used by applicants (Example 5). The coating comprises an anionic surfactant (i.e., applicants’ claimed fluid management system) and an opacifying pigment (e.g., titanium dioxide). See col. 4, ll 5-30 and 55-66. Wallace discloses that the coating comprises other modifiers as necessary. See col. 4, ll 34-36. Akutsu teaches that multivalent salts such as calcium chloride and zinc chloride are

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added to an ink-receptive layer in order to “obtain whiteness, non-pollution, non-changing of colour tone, high resistance to light and high resistance to water of the images” placed on the layer. *See* p 1, ll 33-54. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a multivalent metal salt such as zinc chloride in the Wallace image-recording layer, motivated by the desire of improving the color rendition and light/water resistance of the images placed thereon, as taught by Akutsu on p 1, ll 51-54.

With specific regard to claim 25 and 34, since Tyvek® is identical to the supports used by applicants in the invention, it is inherent it possesses the claimed porosity value.

With specific regard to claims 32 and 33, Akutsu discloses the use of aluminum sulfate. *See* p 1, l 43.

6. Claims 30, 31, ~~38 and 39~~ are rejected under 35 USC 103(a) as being unpatentable over Kovacs (US 6206517) in view of Akutsu, as applied to claims 22, 24-29 and 32, in further view of Hasegawa (US 4954395). Kovacs, while disclosing the use of nonionic surfactants, does not specifically disclose the use of sodium dioctyl sulfosuccinate. Hasegawa teaches that sodium dioctyl sulfosuccinate is a known nonionic surfactant used in ink-receptive layers. *See* col. 8, l 33 through col. 9, 3 and Example 4. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose sodium dioctyl sulfosuccinate as the nonionic surfactant in the Kovacs image-recording layer.

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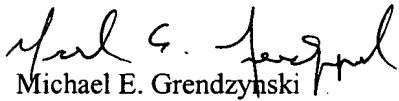
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Koike (US 6394597) and Iwamoto (US 6350507) are cited as teaching not only that metal salts are used in ink-receptive layers to improve image characteristics. See Koike at col. 5, ll 49-55 and Iwamoto at col. 3, l 31 through col. 4, l 18.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Grendzynski whose telephone number is 703-305-0593. The examiner can normally be reached on weekdays, from 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 703-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2351.



Michael E. Grendzynski

Assistant Examiner

March 23, 2003